

Eccosorb[®] LS

Lossy, Flexible, Foam Microwave Absorber

LOSSY, FLEXIBLE FOAM ABSORBER

Eccosorb LS is the most widely known, used, and recommended polyurethane foam absorber. Eccosorb LS obtains its microwave properties via impregnation with a carbon black dispersion and is therefore electrically conductive. It is a very low cost solution for many applications over the thinner, more expensive rubber absorbers.

FEATURES AND BENEFITS

MARKETS

- Commercial Telecom
 - Test Boxes
 - Security and Defense

SPECIFICATIONS

• Very low cost

• Flexible, foam material

• High loss, low density

| TYPICAL PROPERTIES | ECCOSORB LS |
|----------------------------------|-------------|
| Max. Service Temperature °C (°F) | 90 (194) |
| Frequency Range | ≥ 1 GHz |

Data for design engineer guidance only. Observed performance varies in application. Engineers are reminded to test the material in application.

| | | Attenuation (dB/cm) | | Relative Impedance (Z /Z₀) | |
|-------|-------|------------------------|-------|--------------------------------|--|
| | 3 GHz | 10 GHz | 3 GHz | 10 GHz | |
| LS-14 | 1.0 | 1.7 | 0.83 | 0.89 | |
| LS-16 | 1.5 | 2.3 | 0.78 | 0.87 | |
| LS-18 | 3.2 | 4.7 | 0.69 | 0.82 | |
| LS-20 | 4.2 | 7.0 | 0.61 | 0.78 | |
| LS-22 | 7.4 | 14.9 | 0.55 | 0.74 | |
| LS-24 | 11 | 24 | 0.25 | 0.44 | |
| LS-26 | 16 | 34 | 0.18 | 0.31 | |
| LS-28 | 20 | 40 | 0.16 | 0.27 | |
| LS-30 | 24 | 46 | 0.13 | 0.22 | |

APPLICATIONS

- Eccosorb LS is used to lower cavity Q's in RF amplifiers, oscillators, cabinets containing microwave devices, computer housings, LNB's and isolation of antennas by insertion loss.
- Eccosorb LS is also used to reduce surface currents on radiating elements and outer ground-plane type surfaces.
- Reflectivity of an object (metal or otherwise) can be reduced somewhat by applying one or more layers of Eccosorb LS to its surface.

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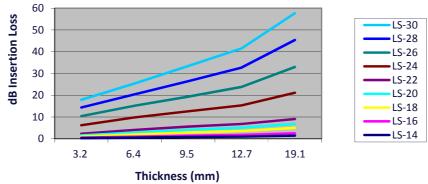
Eccosorb[®]LS

AVAILABILITY

- Standard sheets are 610mm x 610mm (24"x24").
- Standard thicknesses are 3.2 mm (1/8"), 6.4 mm (1/4"), 9.5 mm (3/8"), 12.7 mm (1/2"), 19.1 mm (3/4").
- All Eccosorb LS types can be delivered in special sizes or customer specified configurations upon request. This includes die-cut and kiss cut parts to reduce installation labor by allowing quick assembly.
- Usually Eccosorb LS is supplied with a pressure sensitive adhesive.
- Upon special request, Eccosorb LS can be supplied with an anti-dust coating to prevent carbon fallout.
- It can also be supplied, upon request, with a coating to prevent moisture uptake in high humidity to moderately wet environments.

INSTRUCTIONS FOR USE

- For optimal performance, Eccosorb LS should be bonded to a metallic surface.
- To obtain a strong bond, the surface should be thoroughly cleaned with a degreasing solvent.
- It can be securely bonded to itself or to other materials such as metal, wood and common plastic composites. Our specific Eccostock[®] foam adhesive is recommended or the selfadhesive version can be used.
- The material can be easily cut with a sharp knife, scissors or die.



Approximate Insertion Loss at 3 GHz and 45°

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